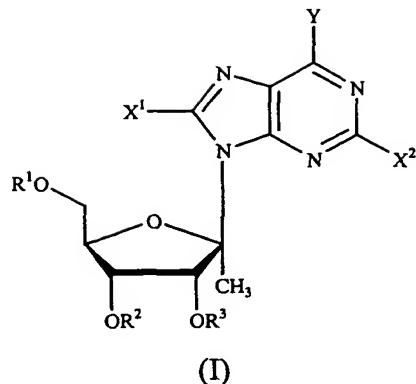


**We Claim:**

1. A compound of Formula I:



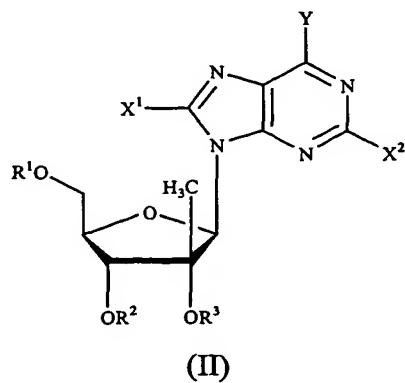
or a pharmaceutically acceptable salt thereof, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;  $Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

2. A compound of Formula II:



or a pharmaceutically acceptable salt thereof, wherein:

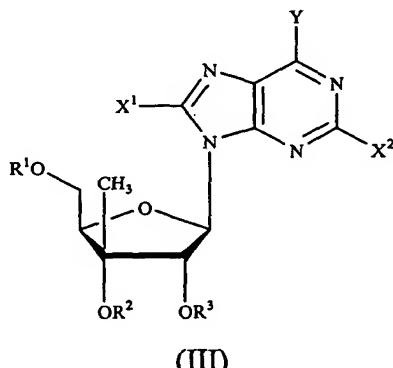
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

3. A compound of Formula III:



or a pharmaceutically acceptable salt thereof, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is

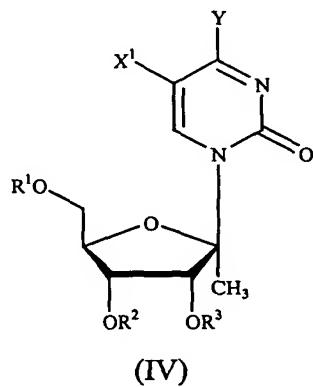
capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

4. A compound of Formula IV:



(IV)

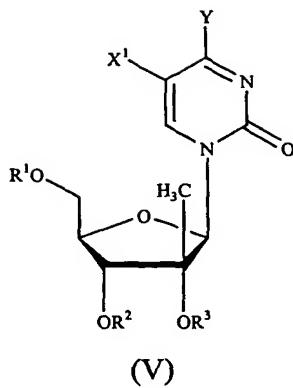
or a pharmaceutically acceptable salt thereof, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;  $Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

5. A compound of Formula V:



or a pharmaceutically acceptable salt thereof, wherein:

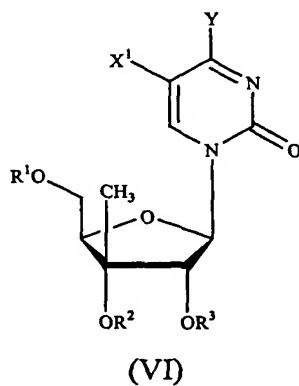
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl,  $CO$ -alkyl,  $CO$ -aryl,  $CO$ -alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

6. A compound of Formula VI:



or a pharmaceutically acceptable salt thereof, wherein:

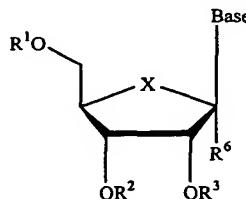
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

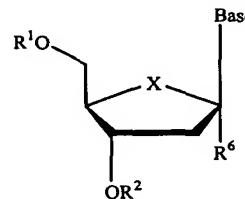
$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

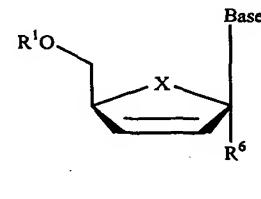
7. A compound selected from Formulas VII, VIII and IX:



(VII)



(VIII)



(IX)

or a pharmaceutically acceptable salt thereof, wherein:

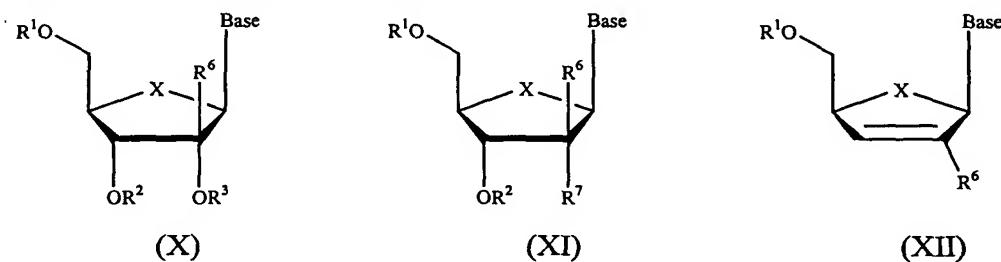
Base is a purine or pyrimidine base as defined herein;

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is

capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, 2-Br-ethyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ ,  $CF_3$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and  
 $X$  is O, S,  $SO_2$ , or  $CH_2$ .

8. A compound of Formulas X, XI and XII:



or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

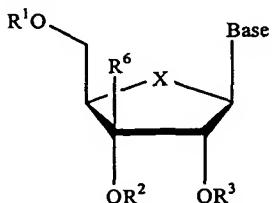
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

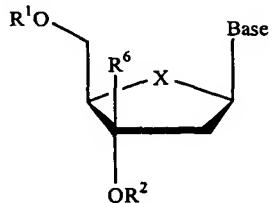
$R^7$  is hydrogen,  $OR^3$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

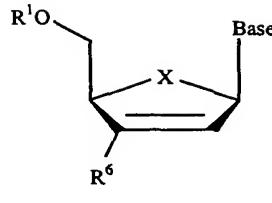
9. A compound selected from Formulas XIII, XIV and XV:



(XIII)



(XIV)



(XV)

or a pharmaceutically acceptable salt thereof, wherein:

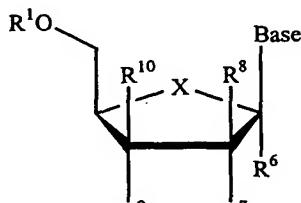
Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

10. A compound of Formula XVI:



(XVI)

or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  and  $R^2$  are independently H or phosphate;  $R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

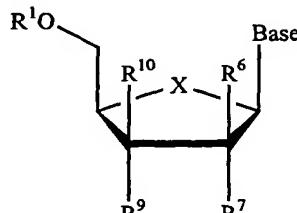
$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^8$  and  $R^{10}$  are independently H, alkyl (including lower alkyl), chlorine, bromine, or iodine;

alternatively,  $R^7$  and  $R^9$ ,  $R^7$  and  $R^{10}$ ,  $R^8$  and  $R^9$ , or  $R^8$  and  $R^{10}$  can come together to form a bond; and

X is O, S,  $SO_2$  or  $CH_2$ .

11. A compound of Formula XVII:



(XVII)

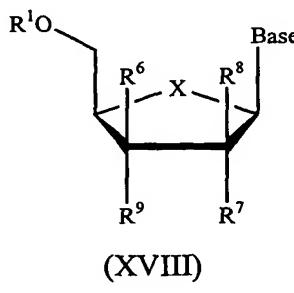
or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl

(including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; R<sup>10</sup> is H, alkyl (including lower alkyl), chlorine, bromine, or iodine; alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>7</sup> and R<sup>10</sup> can come together to form a bond; and X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

12. A compound of Formula XVIII:



or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

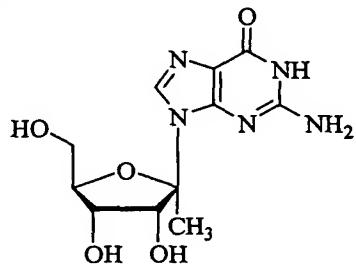
R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; R<sup>10</sup> is H, alkyl (including lower alkyl), chlorine, bromine, or iodine; alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>7</sup> and R<sup>10</sup> can come together to form a bond; and X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, alkyl (including lower alkyl), alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine, NO<sub>2</sub>, amino, loweralkylamino, or di(loweralkyl)amino;

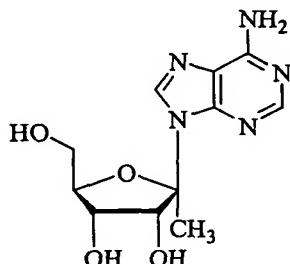
R<sup>8</sup> is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>8</sup> and R<sup>9</sup> can come together to form a bond; and X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

13. A compound of the structure:



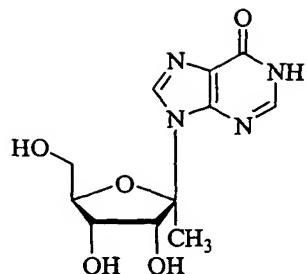
or a pharmaceutically acceptable salt thereof.

14. A compound of the structure:



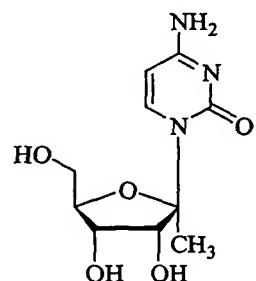
or a pharmaceutically acceptable salt thereof.

15. A compound of the structure:



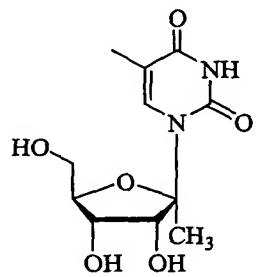
or a pharmaceutically acceptable salt thereof.

16. A compound of the structure:



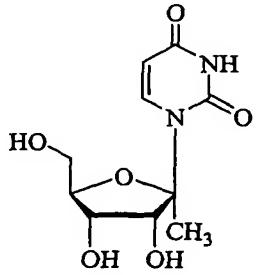
or a pharmaceutically acceptable salt thereof.

17. A compound of the structure:



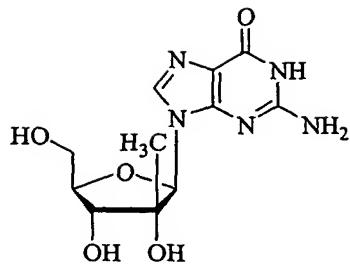
or a pharmaceutically acceptable salt thereof.

18. A compound of the structure:



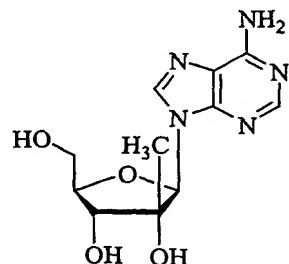
or a pharmaceutically acceptable salt thereof.

19. A compound of the structure:



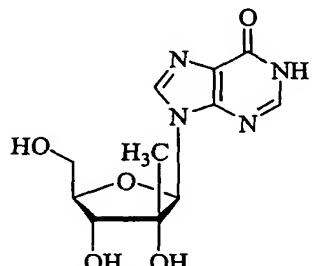
or a pharmaceutically acceptable salt thereof.

20. A compound of the structure:



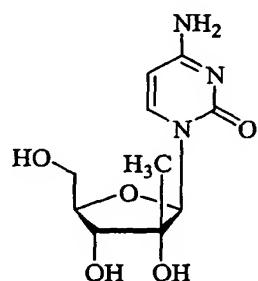
or a pharmaceutically acceptable salt thereof.

21. A compound of the structure:



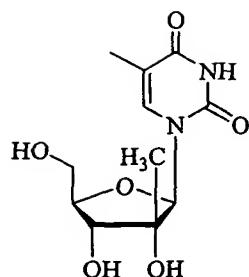
or a pharmaceutically acceptable salt thereof.

22. A compound of the structure:



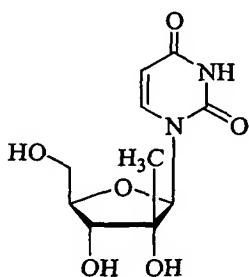
or a pharmaceutically acceptable salt thereof.

23. A compound of the structure:



or a pharmaceutically acceptable salt thereof.

24. A compound of the structure:



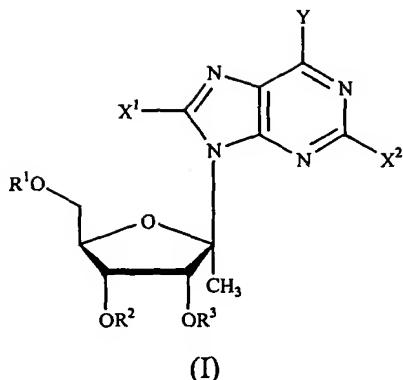
or a pharmaceutically acceptable salt thereof.

25. The compound as described in any of the preceding claims 1-24, wherein the said compound is in the form of a dosage unit.

26. The compound as described in claim 187, wherein the dosage unit contains 10 to 1500 mg of said compound.

27. The compound as described in claim 187 or 188, wherein said dosage unit is a tablet or capsule.

28. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula I:



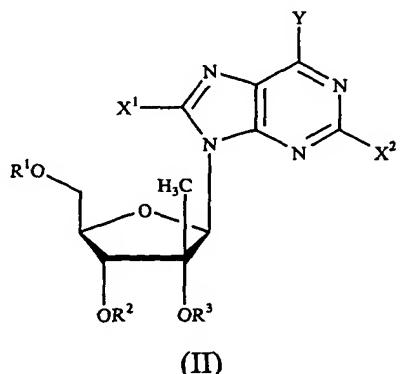
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;  $Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

29. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula II:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

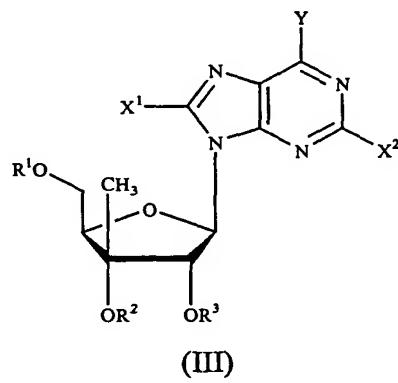
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

30. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula III:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with

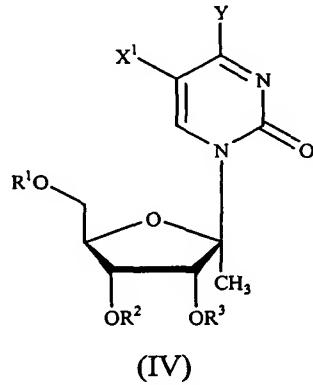
one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

31. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula IV:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

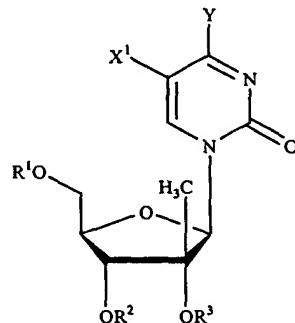
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

32. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula V:



(V)

or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

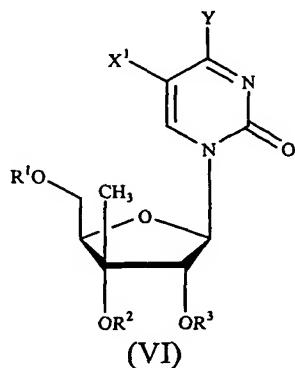
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

33. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula VI:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

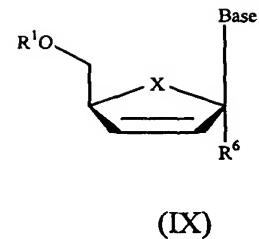
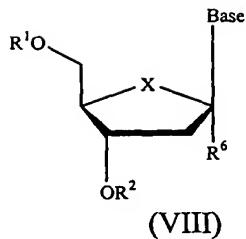
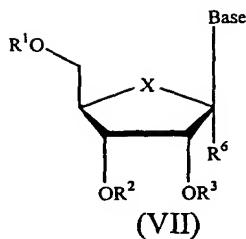
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

34. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formulas VII, VIII or IX:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

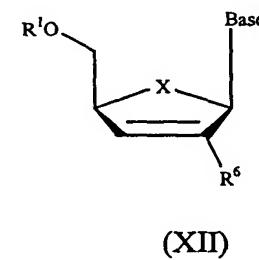
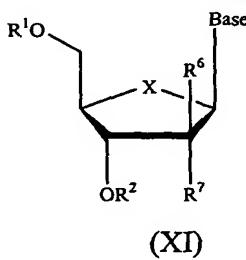
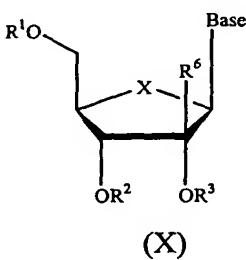
Base is a purine or pyrimidine base as defined herein;

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, 2-Br-ethyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ ,  $CF_3$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

X is O, S,  $SO_2$  or  $CH_2$ .

35. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula X, XI or XII:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

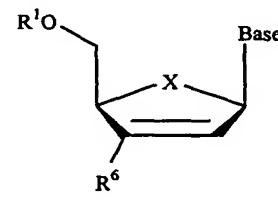
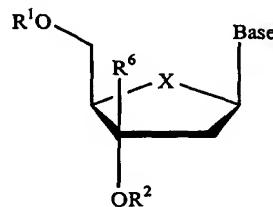
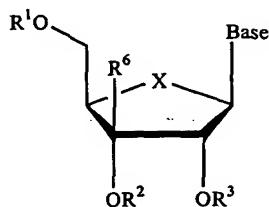
Base is a purine or pyrimidine base as defined herein;  
 $R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^7$  is hydrogen,  $OR^3$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

$X$  is O, S,  $SO_2$  or  $CH_2$ .

36. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XIII, XIV or XV:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

Base is a purine or pyrimidine base as defined herein;

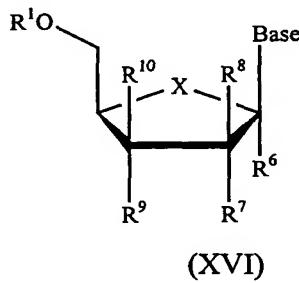
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl

(including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

37. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVI:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

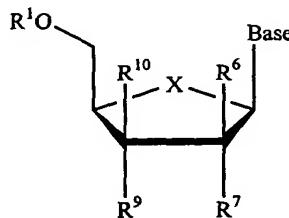
R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub> or -N(acyl)<sub>2</sub>;

R<sup>8</sup> and R<sup>10</sup> are independently H, alkyl (including lower alkyl), chlorine, bromine or iodine;

alternatively, R<sup>7</sup> and R<sup>9</sup>, R<sup>7</sup> and R<sup>10</sup>, R<sup>8</sup> and R<sup>9</sup>, or R<sup>8</sup> and R<sup>10</sup> can come together to form a bond; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

38. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVII:



(XVII)

or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -

O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

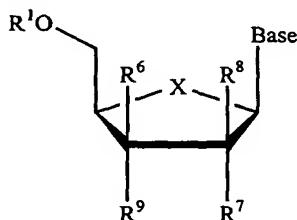
R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>10</sup> is H, alkyl (including lower alkyl), chlorine, bromine or iodine;

alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>7</sup> and R<sup>10</sup> can come together to form a bond; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

39. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVIII:



(XVIII)

or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent, wherein:

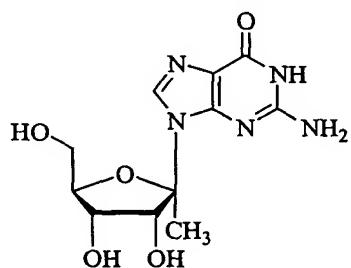
Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , alkyl (including lower alkyl), alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine,  $NO_2$ , amino, loweralkylamino, or di(loweralkyl)amino;

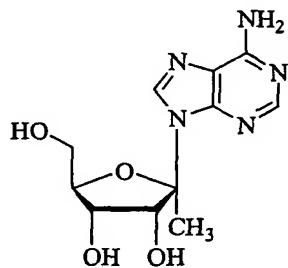
$R^8$  is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively,  $R^7$  and  $R^9$ , or  $R^8$  and  $R^9$  can come together to form a bond; and  $X$  is O, S,  $SO_2$  or  $CH_2$ .

40. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



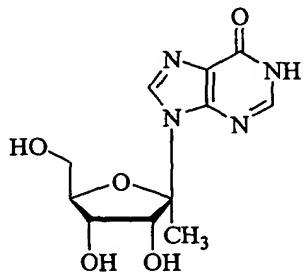
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

41. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



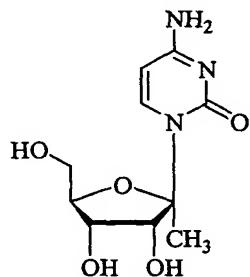
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

42. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



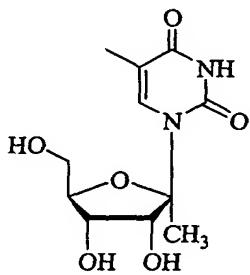
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

43. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



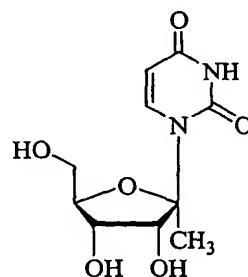
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

44. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



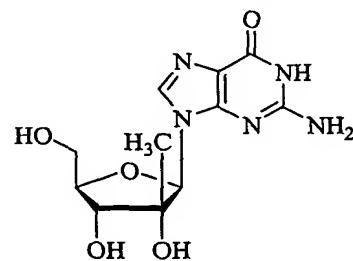
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

45. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



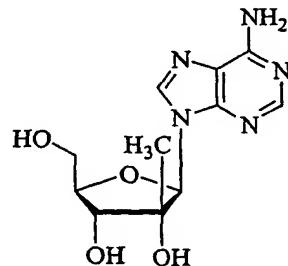
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

46. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



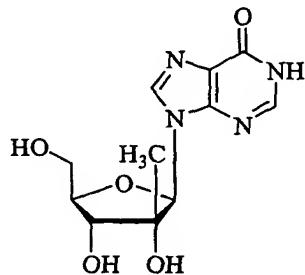
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

47. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



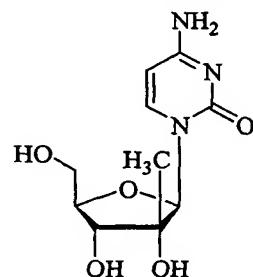
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

48. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



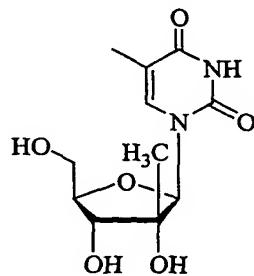
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

49. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



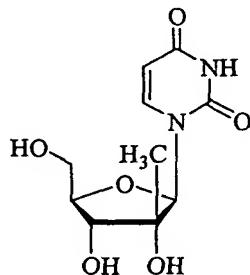
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

50. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



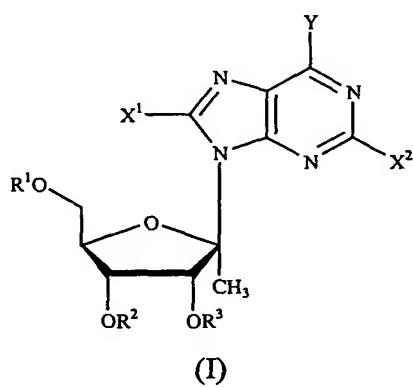
or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

51. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

52. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula I:



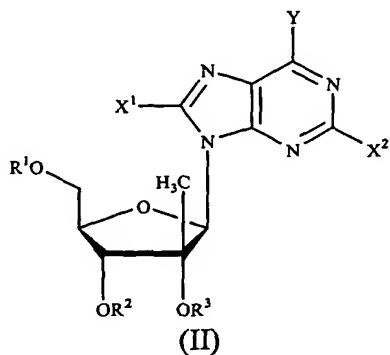
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;  $Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

53. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula II:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

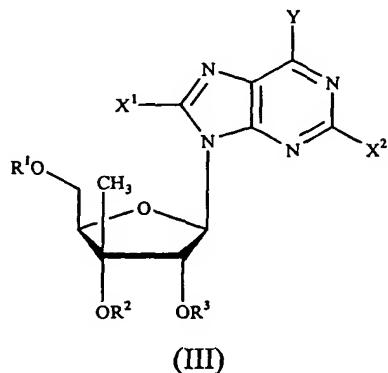
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

54. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula III:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

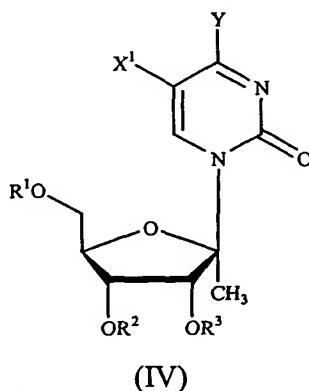
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

55. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula IV:



(IV)

or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

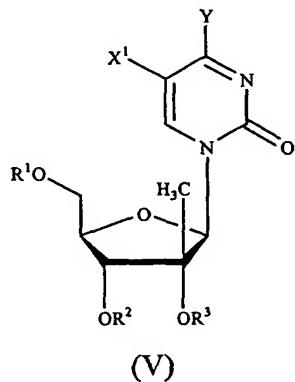
$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$Y$  is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

56. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula V:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

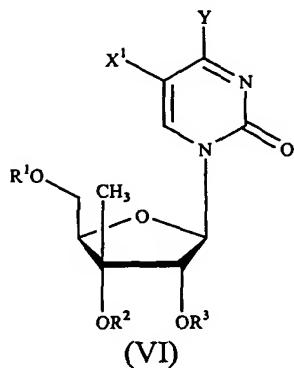
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

57. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula VI:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

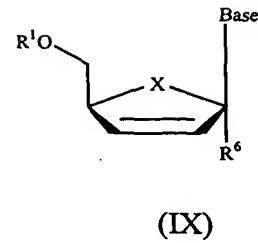
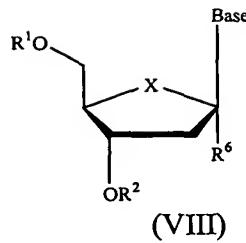
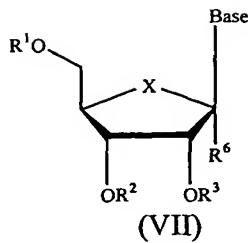
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

58. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula VII, VIII or IX:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

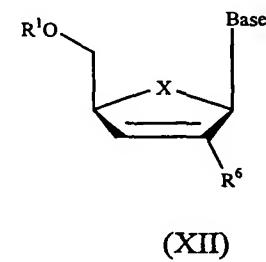
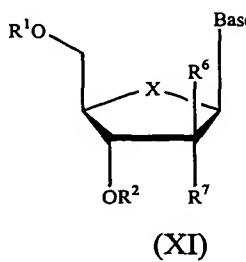
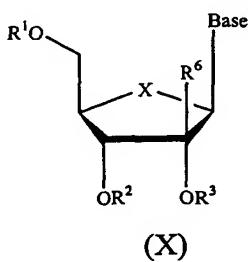
Base is a purine or pyrimidine base as defined herein;

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, 2-Br-ethyl,  $-C(O)O$ (alkyl),  $-C(O)O$ (lower alkyl),  $-O$ (acyl),  $-O$ (lower acyl),  $-O$ (alkyl),  $-O$ (lower alkyl),  $-O$ (alkenyl),  $CF_3$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH$ (lower alkyl),  $-NH$ (acyl),  $-N$ (lower alkyl)<sub>2</sub>,  $-N$ (acyl)<sub>2</sub>; and

X is O, S,  $SO_2$ , or  $CH_2$ .

59. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula X, XI or XII:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

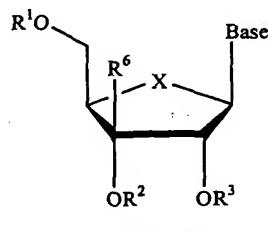
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

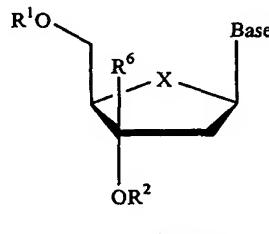
$R^7$  is hydrogen,  $OR^3$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

$X$  is O, S,  $SO_2$ , or  $CH_2$ .

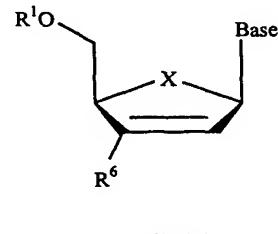
60. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XIII, XIV or XV:



(XIII)



(XIV)



(XV)

or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

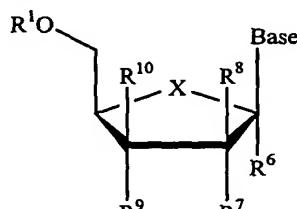
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl

(including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

61. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVI:



(XVI)

or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

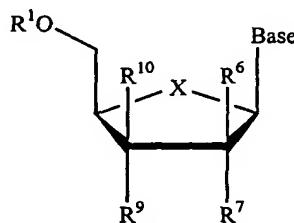
R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>8</sup> and R<sup>10</sup> are independently H, alkyl (including lower alkyl), chlorine, bromine, or iodine;

alternatively, R<sup>7</sup> and R<sup>9</sup>, R<sup>7</sup> and R<sup>10</sup>, R<sup>8</sup> and R<sup>9</sup>, or R<sup>8</sup> and R<sup>10</sup> can come together to form a bond; and

X is O, S, SO<sub>2</sub>, or CH<sub>2</sub>.

62. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVII:



(XVII)

or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

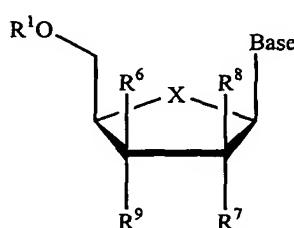
R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -

O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>10</sup> is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>7</sup> and R<sup>10</sup> can come together to form a bond; and X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

63. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of Formula XVIII:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents, wherein:

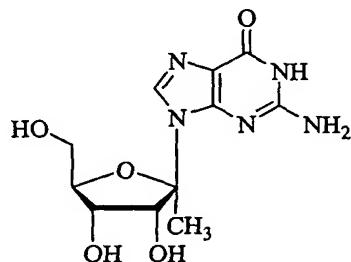
Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , alkyl (including lower alkyl), alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine,  $NO_2$ , amino, loweralkylamino, or di(loweralkyl)amino;

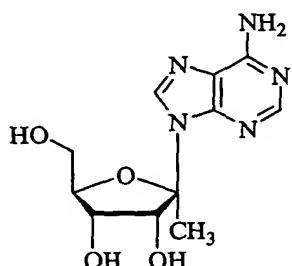
$R^8$  is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively,  $R^7$  and  $R^9$ , or  $R^8$  and  $R^9$  can come together to form a bond; and  $X$  is O, S,  $SO_2$  or  $CH_2$ .

64. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



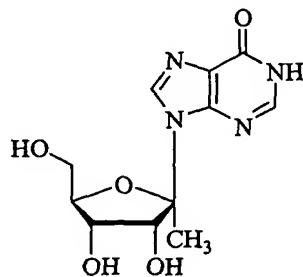
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

65. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



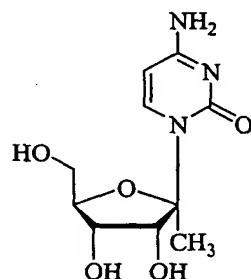
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

66. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



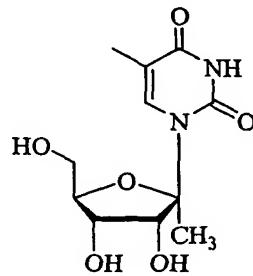
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

67. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



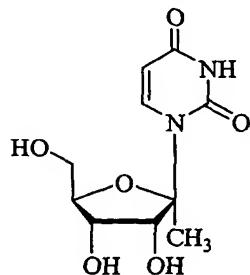
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

68. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



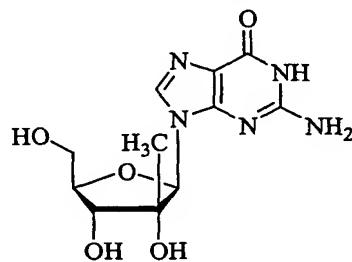
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

69. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



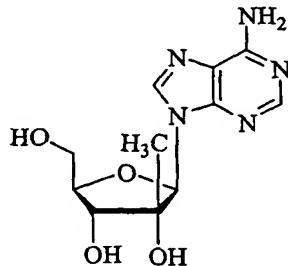
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

70. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



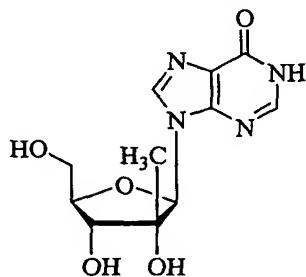
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

71. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



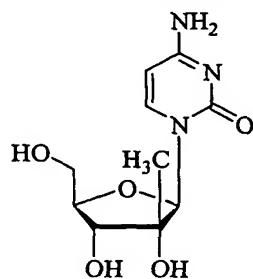
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

72. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



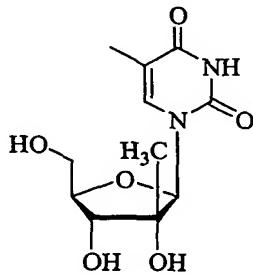
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

73. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



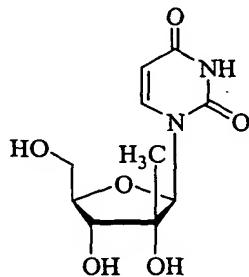
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

74. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

75. A pharmaceutical composition for the treatment or prophylaxis of a flavivirus or pestivirus in a host, comprising an effective amount of a compound of structure:



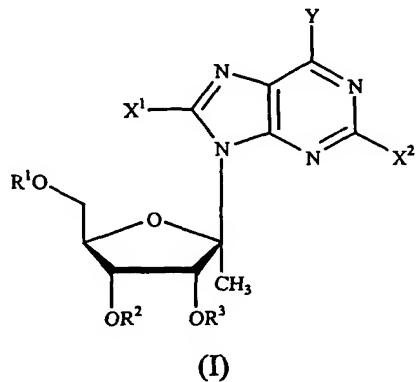
or a pharmaceutically acceptable salt thereof, in combination with one or more other antivirally effective agents.

76. The pharmaceutical composition as described in any of the preceding claims 28-75, wherein the said compound is in the form of a dosage unit.

77. The pharmaceutical composition as described in claim 76, wherein the dosage unit contains 10 to 1500 mg of said compound.

78. The pharmaceutical composition as described in claim 75 or 76, wherein said dosage unit is a tablet or capsule.

79. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula I:

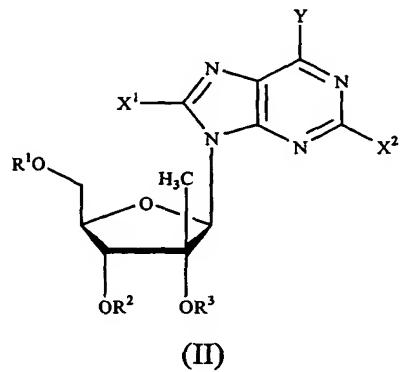


or a pharmaceutically acceptable salt thereof, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower

alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>; X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

80. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of **Formula II**:



or a pharmaceutically acceptable salt thereof, wherein:

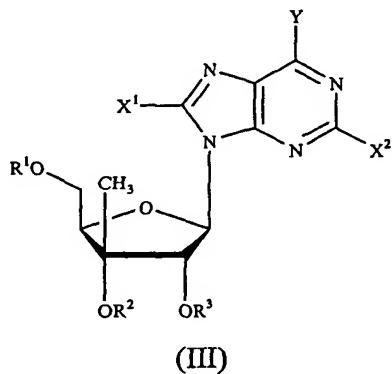
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

81. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of **Formula III**:



(III)

or a pharmaceutically acceptable salt thereof, wherein:

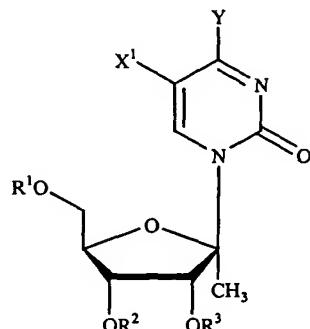
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

82. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula IV:



(IV)

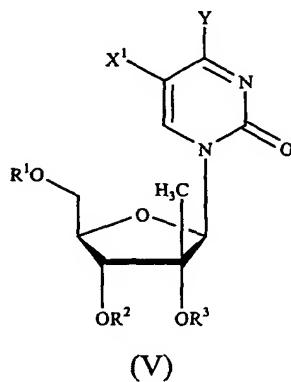
or a pharmaceutically acceptable salt thereof, wherein:

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

83. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula V:



(V)

or a pharmaceutically acceptable salt thereof, wherein:

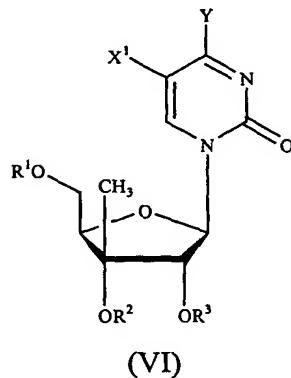
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

84. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula VI:



or a pharmaceutically acceptable salt thereof, wherein:

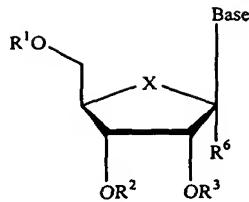
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

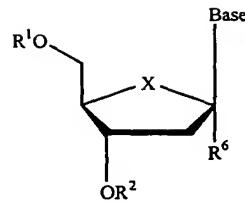
X<sup>1</sup> is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

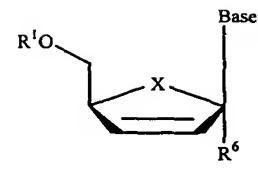
85. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula VII, VIII or IX:



(VII)



(VIII)



(IX)

or a pharmaceutically acceptable salt thereof, wherein:

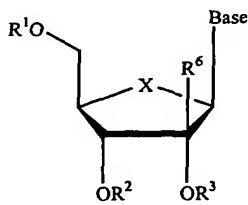
Base is a purine or pyrimidine base as defined herein;

$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

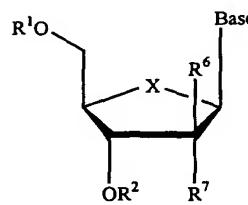
$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, 2-Br-ethyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ ,  $CF_3$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

X is O, S,  $SO_2$ , or  $CH_2$ .

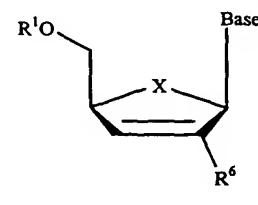
86. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula X, XI or XII:



(X)



(XI)



(XII)

or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

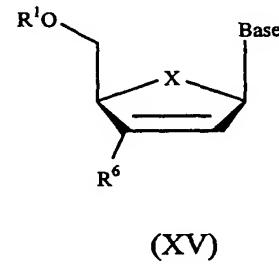
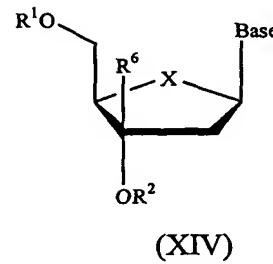
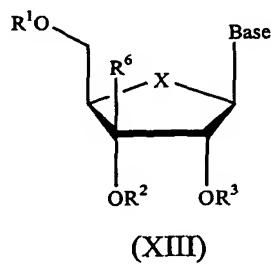
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

$R^7$  is hydrogen, OR<sup>3</sup>, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

87. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XIII, XIV or XV:



or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

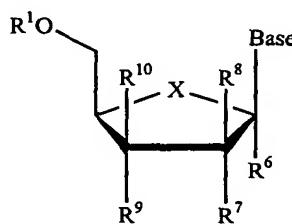
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with

one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

88. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVI:



(XVI)

or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate; R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

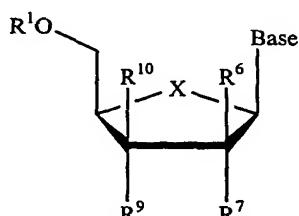
$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^8$  and  $R^{10}$  are independently H, alkyl (including lower alkyl), chlorine, bromine or iodine;

alternatively,  $R^7$  and  $R^9$ ,  $R^7$  and  $R^{10}$ ,  $R^8$  and  $R^9$ , or  $R^8$  and  $R^{10}$  can come together to form a bond; and

X is O, S,  $SO_2$  or  $CH_2$ .

89. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVII:



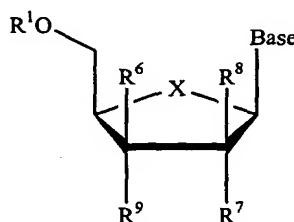
or a pharmaceutically acceptable salt thereof, wherein:

Base is a purine or pyrimidine base as defined herein;

$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  and  $R^2$  are independently H or phosphate;  $R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;  
 $R^{10}$  is H, alkyl (including lower alkyl), chlorine, bromine or iodine;  
alternatively,  $R^7$  and  $R^9$ , or  $R^7$  and  $R^{10}$  can come together to form a bond; and  
 $X$  is O, S,  $SO_2$  or  $CH_2$ .

90. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVIII:



(XVIII)

or a pharmaceutically acceptable salt thereof, wherein:

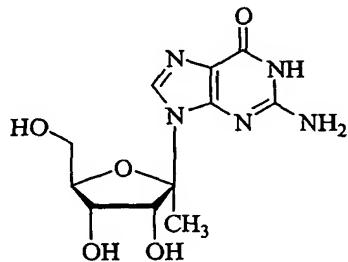
Base is a purine or pyrimidine base as defined herein;

$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  and  $R^2$  are independently H or phosphate;  $R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , alkyl (including lower alkyl), alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine,  $NO_2$ , amino, loweralkylamino, or di(loweralkyl)amino;

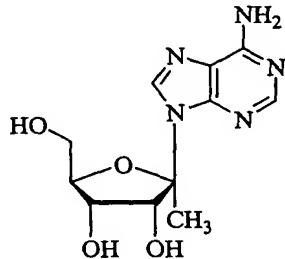
$R^8$  is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively,  $R^7$  and  $R^9$ , or  $R^8$  and  $R^9$  can come together to form a bond; and X is O, S,  $SO_2$  or  $CH_2$ .

91. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



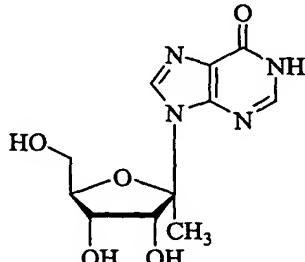
or a pharmaceutically acceptable salt thereof.

92. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



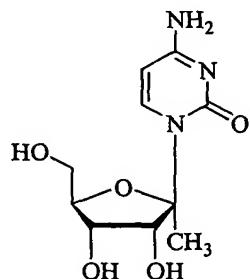
or a pharmaceutically acceptable salt thereof.

93. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



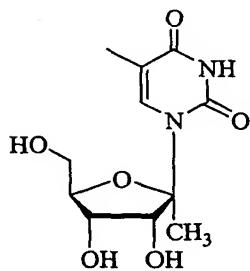
or a pharmaceutically acceptable salt thereof.

94. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



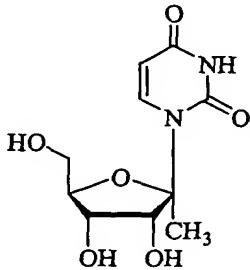
or a pharmaceutically acceptable salt thereof.

95. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



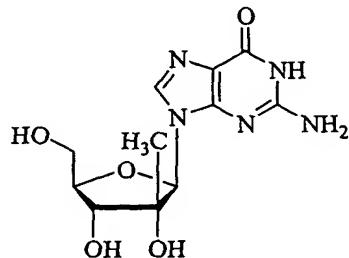
or a pharmaceutically acceptable salt thereof.

96. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



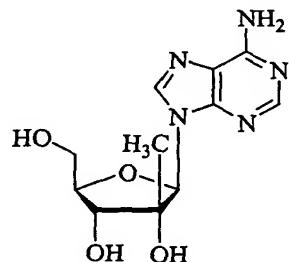
or a pharmaceutically acceptable salt thereof.

97. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



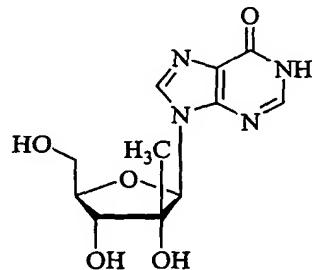
or a pharmaceutically acceptable salt thereof.

98. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



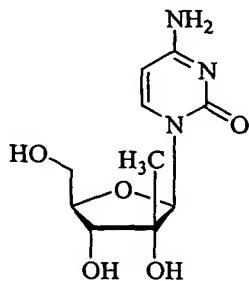
or a pharmaceutically acceptable salt thereof.

99. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



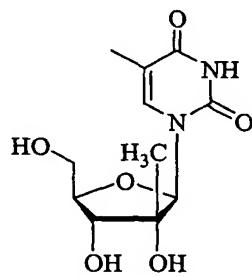
or a pharmaceutically acceptable salt thereof.

100. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



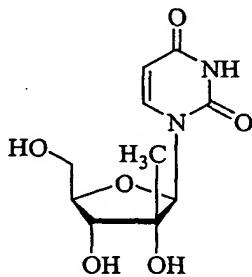
or a pharmaceutically acceptable salt thereof.

101. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



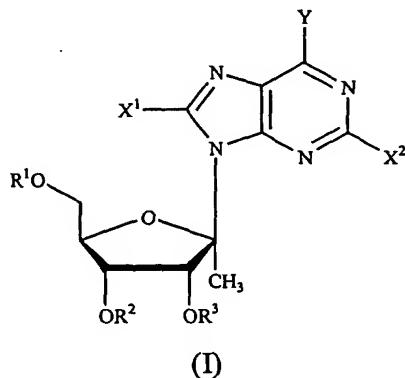
or a pharmaceutically acceptable salt thereof.

102. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



or a pharmaceutically acceptable salt thereof.

103. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula I:



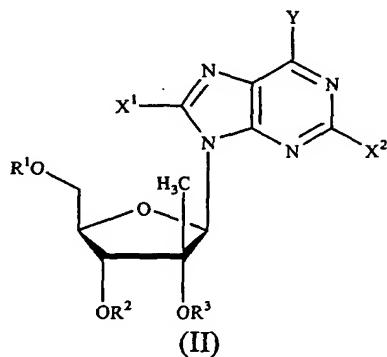
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

$R^1$ ,  $R^2$  and  $R^3$  are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;  $Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

104. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula II:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

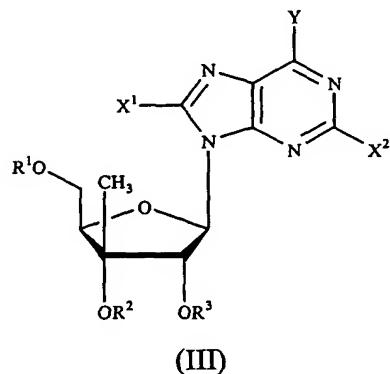
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

$Y$  is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  and  $X^2$  are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

105. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula III:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

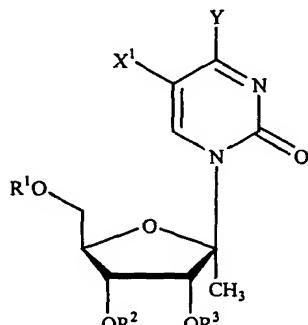
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

X<sup>1</sup> and X<sup>2</sup> are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

106. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula IV:



(IV)

or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

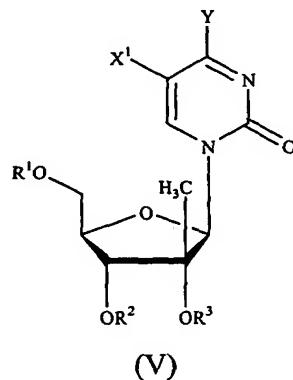
R¹, R² and R³ are independently H, phosphate (including mono-, di- or triphosphate and a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R¹, R² and R³ are independently H or phosphate;

Y is hydrogen, bromo, chloro, fluoro, iodo, OR⁴, NR⁴R⁵ or SR⁴;

X¹ is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR⁴, NR⁴NR⁵ or SR⁴; and

R⁴ and R⁵ are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

107. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula V:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

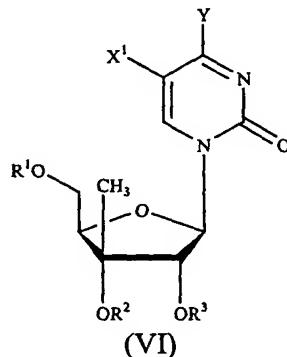
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo,  $OR^4$ ,  $NR^4R^5$  or  $SR^4$ ;

$X^1$  is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo,  $OR^4$ ,  $NR^4NR^5$  or  $SR^4$ ; and

$R^4$  and  $R^5$  are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

108. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula VI:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

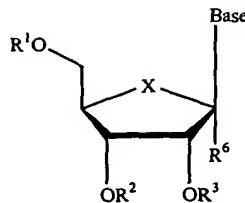
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate; and

Y is hydrogen, bromo, chloro, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>R<sup>5</sup> or SR<sup>4</sup>;

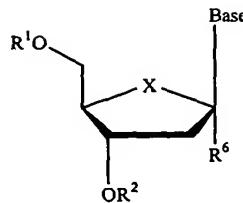
X<sup>1</sup> is selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR<sup>4</sup>, NR<sup>4</sup>NR<sup>5</sup> or SR<sup>4</sup>; and

R<sup>4</sup> and R<sup>5</sup> are independently hydrogen, acyl (including lower acyl), or alkyl (including but not limited to methyl, ethyl, propyl and cyclopropyl).

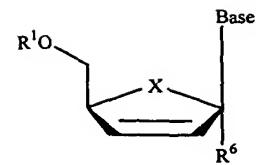
109. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula VII, VIII or IX:



(VII)



(VIII)



(IX)

or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

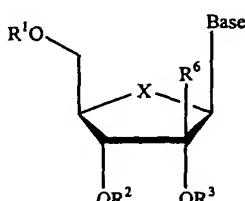
Base is a purine or pyrimidine base as defined herein;

R¹, R² and R³ are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R¹, R² and R³ are independently H or phosphate;

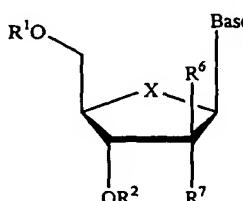
R⁶ is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, 2-Br-ethyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), CF₃, chloro, bromo, fluoro, iodo, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂; and

X is O, S, SO₂, or CH₂.

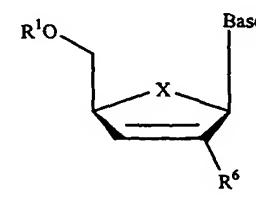
110. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula X, XI or XII:



(X)



(XI)



(XII)

or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

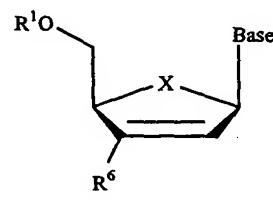
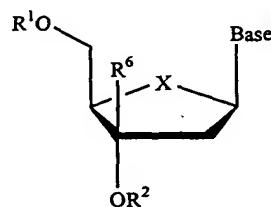
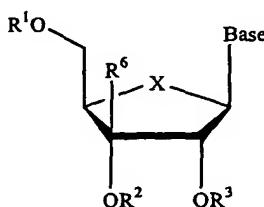
Base is a purine or pyrimidine base as defined herein;  
 $R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^7$  is hydrogen,  $OR^3$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

X is O, S,  $SO_2$  or  $CH_2$ .

111. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XIII, XIV or XV:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

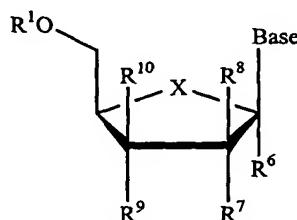
$R^1$ ,  $R^2$  and  $R^3$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl

(including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently H or phosphate;

R<sup>6</sup> is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>; and

X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

112. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVI:



(XVI)

or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

R<sup>1</sup> and R<sup>2</sup> are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R<sup>1</sup> and R<sup>2</sup> are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O$ (alkyl),  $-C(O)O$ (lower alkyl),  $-O$ (acyl),  $-O$ (lower acyl),  $-O$ (alkyl),  $-O$ (lower alkyl),  $-O$ (alkenyl), chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH$ (lower alkyl),  $-NH$ (acyl),  $-N$ (lower alkyl)<sub>2</sub>,  $-N$ (acyl)<sub>2</sub>;

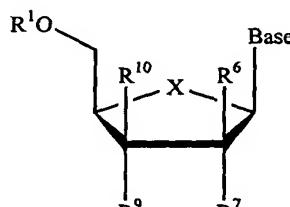
$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O$ (alkyl),  $-C(O)O$ (lower alkyl),  $-O$ (acyl),  $-O$ (lower acyl),  $-O$ (alkyl),  $-O$ (lower alkyl),  $-O$ (alkenyl), chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH$ (lower alkyl),  $-NH$ (acyl),  $-N$ (lower alkyl)<sub>2</sub>,  $-N$ (acyl)<sub>2</sub>;

$R^8$  and  $R^{10}$  are independently H, alkyl (including lower alkyl), chlorine, bromine or iodine;

alternatively,  $R^7$  and  $R^9$ ,  $R^7$  and  $R^{10}$ ,  $R^8$  and  $R^9$ , or  $R^8$  and  $R^{10}$  can come together to form a bond; and

$X$  is O, S,  $SO_2$  or  $CH_2$ .

113. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVII:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  and  $R^2$  are independently H or phosphate;

$R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chloro, bromo, fluoro, iodo,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

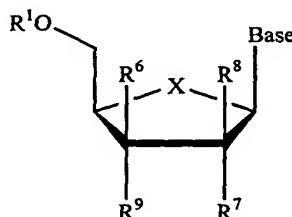
$R^7$  and  $R^9$  are independently hydrogen,  $OR^2$ , hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^{10}$  is H, alkyl (including lower alkyl), chlorine, bromine or iodine;

alternatively,  $R^7$  and  $R^9$ , or  $R^7$  and  $R^{10}$  can come together to form a bond; and

$X$  is O, S,  $SO_2$  or  $CH_2$ .

114. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula XVIII:



(XVIII)

or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more other antivirally effective agents, wherein:

Base is a purine or pyrimidine base as defined herein;

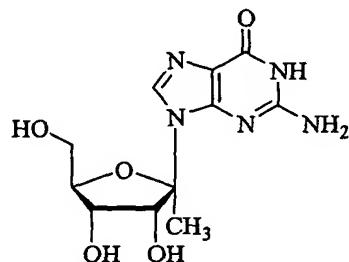
$R^1$  and  $R^2$  are independently H; phosphate (including monophosphate, diphosphate, triphosphate, or a stabilized phosphate prodrug); acyl (including lower acyl); alkyl (including lower alkyl); sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the phenyl group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  and  $R^2$  are independently H or phosphate;  $R^6$  is hydrogen, hydroxy, alkyl (including lower alkyl), azido, cyano, alkenyl, alkynyl, Br-vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO<sub>2</sub>, NH<sub>2</sub>, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)<sub>2</sub>, -N(acyl)<sub>2</sub>;

R<sup>7</sup> and R<sup>9</sup> are independently hydrogen, OR<sup>2</sup>, alkyl (including lower alkyl), alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine, NO<sub>2</sub>, amino, loweralkylamino, or di(loweralkyl)amino;

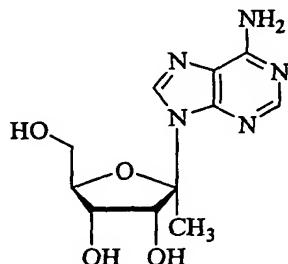
R<sup>8</sup> is H, alkyl (including lower alkyl), chlorine, bromine or iodine; alternatively, R<sup>7</sup> and R<sup>9</sup>, or R<sup>8</sup> and R<sup>9</sup> can come together to form a bond; and X is O, S, SO<sub>2</sub> or CH<sub>2</sub>.

115. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



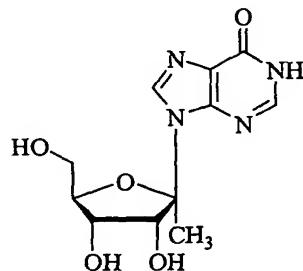
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

116. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



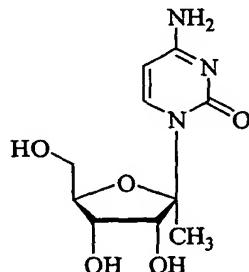
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

117. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



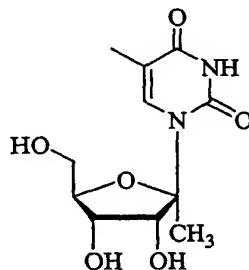
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

118. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



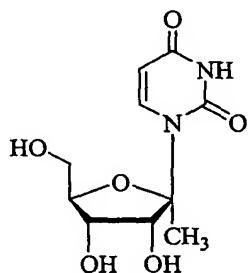
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

119. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



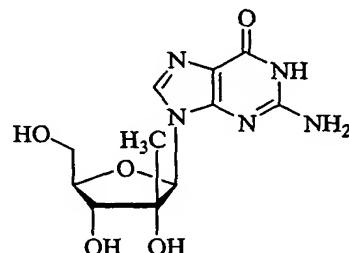
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

120. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



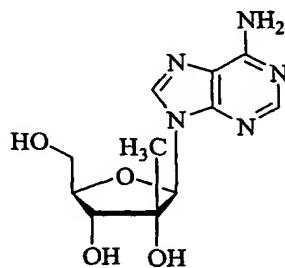
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

121. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



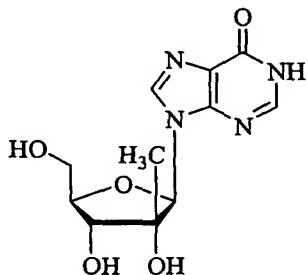
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

122. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



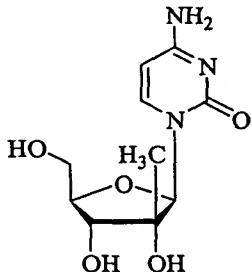
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

123. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



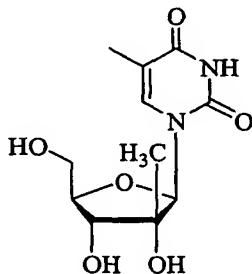
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

124. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



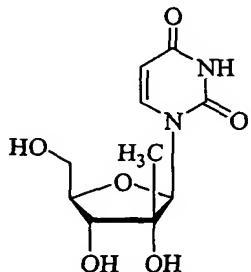
or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

125. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

126. A method for the treatment or prophylaxis of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



or a pharmaceutically acceptable salt thereof, in combination or alternation with one or more antivirally effective agents.

127. Method of treatment as described in any of the preceding claims 79-126, wherein the said compound is in the form of a dosage unit.

128. Method of treatment as described in claim 127, wherein the dosage unit contains 10 to 1500 mg of said compound.

129. Method of treatment as described in claim 127 or 128, wherein said dosage unit is a tablet or capsule.